

ABSTRACT OF THE DISCLOSURE

A receiver device adopting STTD MC-CDMA scheme, includes a plurality of receive antennas, a plurality of MC-CDMA receive units for respectively converting received signals from the plurality of receive antennas into parallel signals, for respectively performing FFT of the converted parallel signals, for respectively inversely spreading transformed signals, and for respectively equalizing and combining inversely spread signals, STTD decoding units for decoding in time direction and in space direction output signals from the plurality of MC-CDMA receive units, a parallel to serial conversion unit for converting output signals from STTD decoding units into serial signals, a de-mapping unit for de-mapping output serial signals from the parallel to serial conversion unit, and a decoding de-interleaving unit for de-interleaving output signals from the de-mapping means and for decoding de-interleaved data by performing error correction.